

**ABSTRACT**

An injection molding apparatus (10, 110) for molding an annular thermoplastic element, such as an annular closure element (E) with no more than a single weldline in the annular extent of the thermoplastic element.

- 5 The thermoplastic element is molded in an annular mold cavity (12, 112), and moldable thermoplastic material (M) is introduced into the mold cavity from a coaxially-aligned annular flow path (18, 118) that is defined between a sliding sleeve (24, 124) and an annular member (22, 122). The sliding sleeve surrounds and is slideable with respect to a fixed pin (26, 126) and is
- 10 slideable between a first, or forward, position, where no thermoplastic material can flow into the mold cavity, and a second, or rearward, position, where thermoplastic material can flow into the mold cavity. Thermoplastic material is introduced into the annular flow path, at a location upstream of the second position of the sliding sleeve, in a single stream through a
- 15 passage (28, 128) to limit the weldlines in the molded thermoplastic element to no more than one.